

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-11. (canceled)

12. (original) A method of diagnosing prostate cancer in a subject, comprising detecting the expression profile of P2X₁, P2X₂, P2X₃, and/or P2X₇ purinergic receptors in prostate cells and/or tissue from the subject using P2X₁, P2X₂, P2X₃ and/or P2X₇ antibody respectively, wherein an increase in the intensity of the P2X purinergic receptor expression profile in the prostate cells and/or tissue, compared to the expression profile of prostate cells and/or tissue from a prostate having benign prostate hyperplasia, is diagnostic of the presence of prostate cancer.
13. (original) A method of diagnosing breast cancer in a subject comprising detecting the expression profile of P2X₂, P2X₃, and/or P2X₇ purinergic receptors in breast cells and/or tissue from the subject using P2X₂, P2X₃, and/or P2X₇ antibody respectively, wherein a decrease in the intensity of the P2X purinergic receptor expression profile in the breast cells and/or tissue compared to the expression profile of breast cells and/or tissue from the breast of a normal subject, is diagnostic of the presence of breast cancer.
14. (previously presented) A method according to any one of claims 12 or 13 wherein the antibody reagent comprises a polyclonal antiserum.
15. (previously presented) A method according to any one of claims 12 or 13 wherein the antibody reagent comprises a monoclonal antiserum.

16-61. (canceled)